

Application No.: 10/663551
Docket No.: EL0496USNA
Response to Final Office Action of 15 Nov 05 as RCE submission

REMARKS

Status of Claims

- [1] Claims 1-23 are pending and have been rejected.
- [2] Independent claims 1 and 11 have been amended to recite that the termination of the first electrode and the termination of the second electrode are at a distance from each other, which is less than the width of either the first electrode or the second electrode. Support for the amendment is found in the specification at least at page 12, line 22 to page 13, line 5. Thus, no new matter has been added.

Rejections

35 USC 102(b)

Vu

- [3] Claims 1-2, 4-12 and 14-23 were rejected under this provision as anticipated by U.S. Patent No. 5,144,526 to Vu. The Office Action implies that in Figure 2, Vu discloses each element as claimed. Applicants do not agree with the implication that Vu discloses each element as claimed in the priorly recited claims. However, Applicants have amended the claims to pinpoint the novel structural property and relationship that imparts novel function to the present invention.

- [4] As amended, the claims recite a printed wiring circuit board with innerlayer panels that include capacitors that have the termination of the first electrode, which is within the footprint of the first electrode, and the termination of the second electrode, which is within the footprint of the spaced electrode, at a distance from each other, which is less than the width of either the first electrode or the second electrode. Spacing the terminations of the electrodes at such a distance reduces the contribution to circuit inductance by the capacitor (Spec. pg. 13, lines 4-5). Moreover, reducing the contribution to circuit inductance by the capacitor is a technical solution of the present invention (spec., pg. 5, lines 4-18; pg. 3, lines 1-11, 15-17; pg. 4, lines 3-5; pg. 22, lines 30-32.)

- [5] In order to anticipate, a reference must disclose each element as claimed either expressly or inherently. MPEP § . There is no question that Vu does NOT expressly disclose the claims as amended, in particular, the element of spacing the electrode terminations at a distance less than the width of either the first or second electrode. Further, there is also no

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question that Vu does NOT inherently disclose this element. This is because Vu contains absolutely no discussion or depiction of the following elements: the relationship between the width of either the first or second electrode of its LTCC structure in relation to the distance between electrode terminations. Without such a discussion, one of skill in the art could not discern from Vu Figures 1 or 2 what the spatial relationship or distance is between the terminations of the first and second electrode terminations. Indeed, because there is absolutely no discussion whatsoever of electrode terminations in Vu, the very concept of spacing terminations to As there is absolutely nothing in Vu that indicates that spacing such terminations creates a property that , Vu cannot anticipate the claims as recited. Applicants respectfully requests the withdrawal of this rejection.

O'Bryan

[6] Claims 1-3 and 11-13 were rejected under this provision as anticipated by U.S. 6,274,224 (O'Bryan). The Examiner notes that O'Bryan figure 3B discloses, a printed wiring board comprising a first circuit conductor (36b) extending through at least part of the printed wiring board and a plurality of stacked interlayer panels, wherein at least one of the panels comprises a least one capacitor.

[7] As Vu, O'Bryan does NOT disclose each element of the claims as amended. The above remarks regarding Vu apply with equal weight to O'Bryan.

[8] In addition, to address an incorrect assertion by the Examiner, Applicants maintain that O'Bryan describes a laminate material containing capacitive and/or resistive functional phases providing a laminate between 2 or more sheets of copper. Bryan Figures 5A and 5B of describe an annular ring patterned in the surface of substrates 51 and 52 and state that the ring can function as either a resistor or capacitor. The O'Bryan annular ring does not function at all in the same way as the annular ring in the present invention case. In particular, as shown in present Figures 1 F and 1G, the pad formed by trench 116 has the triple function of (1) making a high quality connection to electrode 130 while (2) preventing electrode 130 from being etched away by the chemistry used to form trench 116; and (3) electrically insulating pad 118 from the copper foil electrode 119.

[9] Accordingly, O'Bryan cannot and does not anticipate the claims as amended. Applicants request the withdrawal of this rejection.

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[10] Applicants note the prior art not relied upon but made of record in this case and make no further comment regarding this art.

[11] In view of the foregoing, Applicants assert the claims are in condition for allowance and seek an early allowance of the application.

Respectfully submitted,



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Dated: 12 May 2006